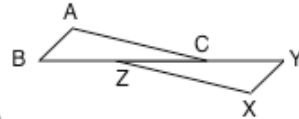


## Geometry Investigation #0

# Triangle Congruence Proofs

1. Given  
 $BZCY$  is a straight line.  
 $BZ = CY$ ,  $AB = XY$  and  $AC = XZ$ .  
Problem  
 Prove that  $\angle A = \angle X$ .

Solution



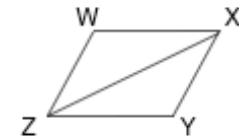
Picture

Conclusion

2. Given  
 $\angle WZX = \angle ZXY$  and  $\angle YZX = \angle WXZ$   
Problem  
 Prove that  $\triangle XZW = \triangle XYZ$

Solution

Picture

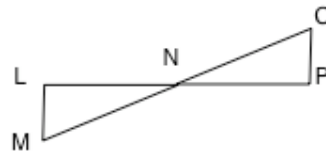


Conclusion

3. Given  
 $MNO$  bisects  $LP$  at  $N$   
 $LM$  and  $OP$  are perpendicular to  $LP$   
Problem

Solution

Picture

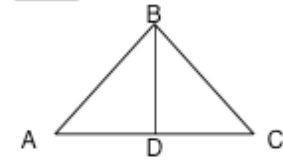


Conclusion

4. Given  
 $\triangle ABC$  is isosceles  
 $BD$  bisects  $\angle ABC$   
Problem

Solution

Picture



Conclusion